

REMARKS

Claims 1-15 are pending. In the last Office Action the Examiner rejected claims 1-5 as obvious under 35 USC 103 over certain references. Claim 6 stands withdrawn as directed to non-elected subject matter. Claims 7-15 are being added to the case herewith. Every one of these newly added claims is dependent on claim 1. These newly added claims are, therefore, directed to elected subject matter and should all also be examined on the merits.

Election/Restriction

The undersigned hereby affirms the election as noted on page 2 of the last Office Action.

Support

Support for newly added claim 7 can be found in the specification as filed on page 7 at lines 4-9.

Support for newly added claims 8-10 can be found in the specification as filed on page 13 at lines 19-24.

Support for newly added claims 11 and 12 can be found in the specification as filed on page 16 at lines 26-30.

Support for newly added claim 13 can be found in the specification as filed on page 16 at line 31.

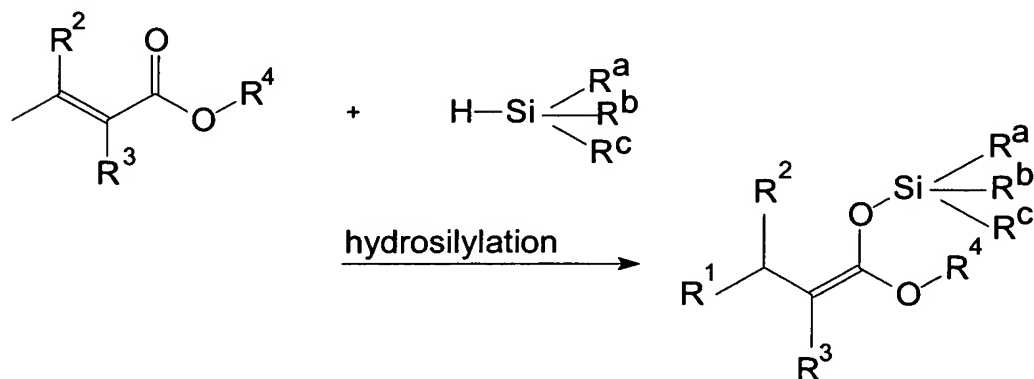
Support for newly added claim 14 can be found in the specification as filed on page 16 at line 32.

Support for newly added claim 15 can be found in the specification as filed on page 16 at lines 34.

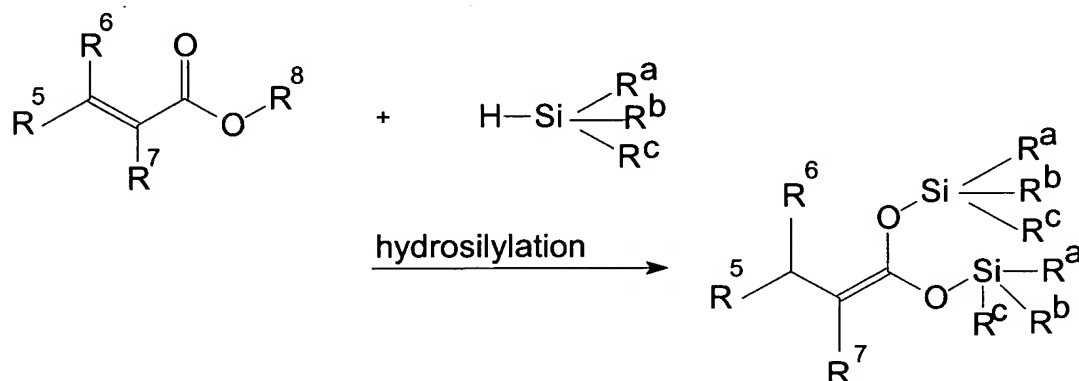
Issues under 35 USC 103

The rejection in the last Office Action of claims 1-5 as obvious under 35 USC 103 over U.S. Patent 5,208,358 (Dinh) in view of U.S. Pub No. 2004/0127688 A1 (Rubinsztajn) is traversed because it would not be obvious to the skilled artisan to combine these references as explained more fully below.

In the present invention, a silyl ketene acetal of formula (3) is obtained by reacting an α,β -unsaturated carbonyl of the compound of formula (1) with the hydrogen atom directly bound to a silicon atom of a hydrosilane or hydrosiloxane of formula (2). In other words, the α,β -unsaturated carbonyl of the compound (1) is hydrosilylated as follows.

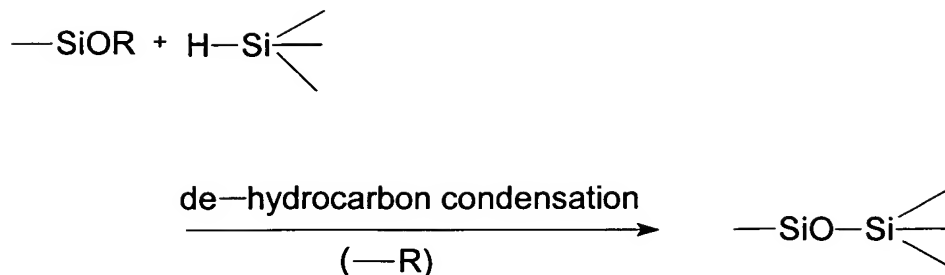


With respect to a disilyl ketene acetal of formula (5), an α,β -unsaturated carbonyl of the compound of formula (4) undergoes hydrosilylation with a hydrosilane or hydrosiloxane of formula (2). In this case, however, the reaction is accompanied by a concomitant reaction of the $-O-R^8$ group of formula (4) with the SiH group of formula (2), to afford a disilyl ketene acetal of formula (5), as follows.



Dinh discloses a process for the preparation of silyl ketene acetals by reacting R_3SiH and $R^1_2C=CR^1-COOR^2$ in the presence of $RhCl(di\text{-}tert\text{-}butylsulfide)_2$ to prepare $R^1_2C-R^1=C(OSiR_3)(OR^2)$. The reaction is a hydrosilylation as well.

On the other hand, Rubinsztajn discloses a process for forming a silicon-oxygen bond by reacting a silicon-containing compound having an alkoxy group bound to a silicon atom in the presence of a Lewis acid catalyst, as follows:



The Rubinsztajn reaction is a formal nucleophilic substitution of a hydrogen atom at a silicon center by a siloxy group. By contrast, hydrosilylation, a reaction of a Si-H bond and an unsaturated functionality, falls into the category of an addition reaction. In view of the difference between the nature of the reactions of Dinh and Rubinsztajn, there would be no motivation for one skilled in the art to combine Dinh and Rubinsztajn, since it is far from obvious that a substitution reaction and an addition reaction could be effectively promoted by the same catalyst.

Accordingly, it would be difficult or impossible to anticipate or expect that Lewis acids including tris(pentafluorophenyl)borane could work as an efficient catalyst for the reaction in the present invention, hydrosilylation of an α,β -unsaturated carboxylic ester.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact David R. Murphy (Reg. No. 22,751) at the telephone number of the undersigned below, to conduct an interview

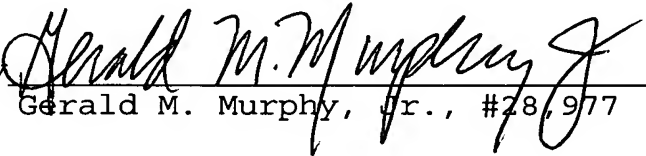
in an effort to expedite prosecution in connection with the present application.


Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$120.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By 
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